

**DIRECT CONTACT LIQUID AIR CONTAMINANT CONTROL SYSTEM**

**ABSTRACT OF THE DISCLOSURE**

5        The direct contact liquid air contaminant control system and method to  
revitalize air by removal of carbon dioxide and other trace gas contaminants  
use a direct contact air, liquid scrubber element and stripper element. The  
scrubber element has two rotor elements rotatably mounted in a housing first  
for centrifugal separation of an air flow and liquid absorbent mixture which liquid  
10      absorbent has absorbed carbon dioxide and trace gas contaminants. Then  
second for centrifugal separation of an air flow and acid water wash mixture  
which acid water wash has liquid absorbent and other contaminants. The  
processed air is then passed through a charcoal bed filter for further removal of  
contaminants. A rotary contact processor may also be used to reprocess  
15      contaminated liquid absorbent for reuse.